

# CORE

## ANNUAL REPORT

### 2022 – 2023



Econometrics



Economics



Quantitative geography



Operations research



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## Presentation



Dear friends of CORE,

It is with great pleasure and a sense of immense pride that I present to you the annual report of the Center for Operations Research and Econometrics (CORE) for the dynamic period of September 2022 to August 2023. This period has been marked by vibrant activities, transformative research, and the collective spirit of our remarkable team, consisting of 20 dedicated faculty members, 15 emeriti, a stellar staff of 8, and a talented generation of young researchers, including PhD and Postdoctoral students. I also warmly welcome our new president, Daniele Catanzaro, who has taken over from Mathieu Van Vyve, whose exemplary leadership and representation of CORE within the intricacies of our university has been nothing short of exceptional.

CORE has always been more than a research center; it is a beacon of knowledge and a home away from home for researchers from across the globe. Our renowned hospitality and welcoming spirit, courtesy of our invaluable staff, continue to make CORE a favored destination for intellectual exchange and collaboration.

Our research landscape has been particularly rich and diverse, with active pursuits and significant accomplishments in areas including Behavioral Economics, Big Data, Digital Economics, Energy, Education, Game Theory, Mathematical Optimization, Public Economic Theory, Social Choice and Welfare, and Econometrics. These endeavors not only contribute to the vast ocean of knowledge but also pave the way for practical solutions to real-world challenges.

The period has also been one of reflection and homage. The passing of Jacques Drèze in September 2022 left a profound impact on us all. In honor of his legacy, we have embarked on establishing a sustainable tribute that reflects the immense heritage he has left behind. This led to the inception of the “Jacques Drèze Conferences,” with the inaugural event held in October 2023. This initiative symbolizes our ongoing commitment to honor our forebearers while fostering future generations of economists.

Moreover, we paid tribute to our esteemed emeritus colleague, Luc Bauwens, by organizing a conference in June 2023 that gathered the crème de la crème of financial econometrics. This event not only recognized Luc’s contributions but also highlighted the ongoing advancements in the field.

In closing, I wish to extend my heartfelt congratulations to everyone at CORE for another successful year. Your dedication, creativity, and passion for research are what make CORE a leading light in the academic world. I look forward to the continued journey of discovery, innovation, and learning in the beautiful setting of Louvain-la-Neuve.

Warmest regards,

Sébastien Van Bellegem  
Research Director, Center for Operations  
Research and Econometrics (CORE)  
UCLouvain



## People

### CORE TEAM | Management



**Mathieu VAN VYVE**

*President*

+ 32 (0)10 47 81 61

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**Sébastien VAN BELLEGEM**

*Research Director*

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[sebastien.vanbellegem@uclouvain.be](mailto:sebastien.vanbellegem@uclouvain.be)



**Nancy GUILLAUME**

*Administrative Manager*

+32 (0)10 47 43 54

[nancy.guillaume@uclouvain.be](mailto:nancy.guillaume@uclouvain.be)

## CORE TEAM | Faculty members



**Per AGRELL**  
Prof. of Operations  
Research



**Paul BELLEFLAMME**  
Prof. of Economics



**Constantin BLOME**  
Prof. of Operations  
Research



**Daniele CATANZARO**  
Prof. of Operations Research



**Philippe CHEVALIER**  
Prof. of Operations Research



**François GLINEUR**  
Prof. of Operations  
Research



**Jean HINDRIKS**  
Prof. of Economics



**Johannes JOHNEN**  
Prof. of Economics



**Bart JOURQUIN**  
Prof. of Operations Research



**Philipp KIRCHER**  
Prof. of Economics



**François MANIQUET**  
Prof. of Economics



**Ana MAULEON**  
Prof. of Economics



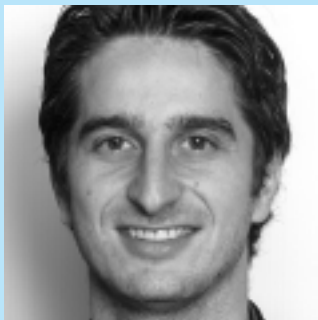
**Francesca MONTI**  
Prof. of Economics



**Yurii NESTEROV**  
Prof. of Operations Research



**Amma PANIN**  
Prof. of Economics



**Anthony PAPAVALIIOU**  
Prof. of Operations Research



**Jean-Sébastien TANCREZ**  
Prof. of Operations Research



**Sébastien VAN BELLEGEM**  
Prof. of Econometrics



**Vincent VANNETELBOSCH**  
Prof. of Economics

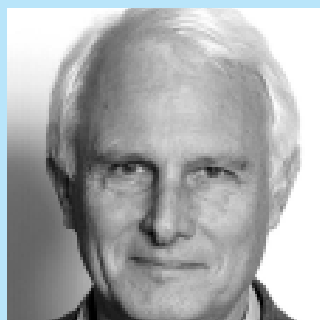


**Mathieu VAN VYVE**  
Prof. of Operations Research

## CORE TEAM | Emeriti



**Luc BAUWENS**  
Prof. of Econometrics



**Claude D'ASPREMONT**  
Prof. of Economics



**Pierre DEHEZ**  
Prof. of Economics



**Jean J. GABSZEWICZ**  
Prof. of Economics



**Victor GINSBURGH**  
Prof. of Economics



**Etienne LOUTE**  
Prof. of Operations Research



**Michel MOUCHART**  
Prof. of Econometrics



**Dominique PEETERS**  
Prof. of Geography



**Pierre PESTIEAU**  
Prof. of Economics



**Léopold SIMAR**  
Prof. of Econometrics



**Yves SMEERS**  
Prof. of Operations Research



**Jacques-François THISSE**  
Prof. of Economics



**Isabelle THOMAS**  
Prof. of Geography



**Henry TULKENS**  
Prof. of Economics



**Laurence WOLSEY**  
Prof. of Operations Research



## CORE TEAM | Junior researchers



### Gautier ATTANASI

Louvain School of Economics

Thesis: Dimension reduction of high dimensional nonstationary time series

Supervisor: **Sébastien Van Bellegem**

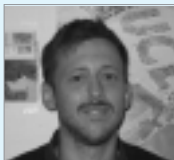


### Daniel Felipe AVILA GIRARDOT

Louvain School of Economics

Thesis: A stochastic programming approach to multi-stage TSO-DSO coordination under uncertainty

Supervisor: **Anthony Papavasiliou**



### Matteo BULGARELLI

Louvain School of Economics

Thesis: Market Structure and Sustainability: Cooperation Incentives and Barriers to a Circular Economy

Supervisor: **Paul Belleflamme**



### Jacques CARTUYVELS

Louvain School of Engineering

Thesis: Study on scarcity pricing in Belgium

Supervisor: **Anthony Papavasiliou**



### Sefane CETIN

Louvain School of Economics

Thesis: Heterogenous preferences and risk sharing under different pension systems

Supervisor: **Jean Hindriks**



### Xyuan CHEN

Louvain School of Economics

Thesis: Tax enforcement and multinationals' profit shifting

Supervisor: **Anthony Papavasiliou**



### Fabrizio CIOTTI

Louvain School of Economics

Thesis: The economics of digitization

Supervisor: **Paul Belleflamme**



### Sarah DAMAI

Louvain School of Management

Thesis: Managing impatient flows in a hospital taking into account the patient diagnosis and the stochastic nature of arrivals

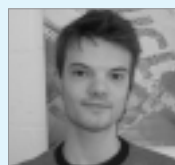
Supervisor: **Philippe Chevalier**



**Pierre DE CALLATAÿ**

Louvain School of Economics  
Thesis: The role of information in social dilemmas

Supervisor: **Vincent Vannetelbosch**



**Henri DEHAYBE**

Louvain School of Management  
Thesis: A deep reinforcement learning approach for solving stochastic inventory problems

Supervisor: **Philippe Chevalier**



**Julien DEWEZ**

Louvain School of Engineering  
Thesis: Lower bounds on the nonnegative rank

Supervisor: **François Glineur**



**Nikita DOIKOV**

Louvain School of Engineering  
Thesis: Development of second order methods for structured optimization problems

Supervisor: **Yurii Nesterov**



**Jérôme DOLLINGER**

Louvain School of Economics  
Thesis: Coalitions interrelations and co-evaluations

Supervisor: **Ana Mauleon** and **Vincent Vannetelbosch**



**Thomas EISFELD**

Louvain School of Economics  
Thesis: Peer-dependent reference points

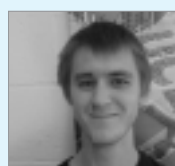
Supervisor: **Johannes Johnen** and **François Maniquet**



**Martin FROHN**

Louvain School of Engineering  
Thesis: Greed, majorization, and their impact on optimization over lattices unrotated binary trees

Supervisor: **Daniele Catanzaro**



**Sylvain FUNCK**

Louvain School of Economics  
Thesis: Matching with group-dependent preferences: Refugees resettlement and employment guarantee scheme

Supervisor: **Ana Mauleon** and **Vincent Vannetelbosch**



**Céline GÉRARD**

Louvain School of Engineering  
Thesis: Mobilizing flexible demand electric power systems through service quality differentiation

Supervisor: **Anthony Papavasiliou**



**Antoine GERMAIN**

FNRS research fellow/aspirant  
Thesis: Fairness, optimal taxation and public policies evaluation

Supervisor: **François Maniquet**



### Madeleine GUYOT

Department of Geography  
Thesis: Urban streetscape and wellbeing: The example of Brussels

Supervisor: **Isabelle Thomas** and **Sophie Vanwambeke**



### Thomas HACARDIAUX

Louvain School of Management  
Thesis: Benefits of horizontal cooperation in supply chains

Supervisor: **Jean-Sébastien Tancrez**



### Manuel HERRA RODRIGUEZ

Louvain School of Management  
Thesis: Three essays on port network optimization and Panama canal models

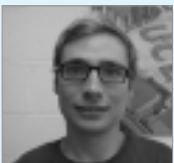
Supervisor: **Per Agrell**



### Colin LEONETTI

Louvain School of Management  
Supply chain management

Supervisor: **Daniele Catanzaro**



### Quentin Lété

Louvain School of Engineering  
Thesis: Models and algorithms for the active management of the European electricity

Supervisor: **Anthony Papavasiliou**



### Liana-Sabina LUNCASU

Louvain School of Economics  
Thesis: Nonparametric estimation of efficiency frontiers with noise in both variables

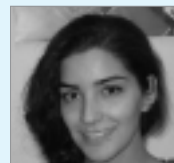
Supervisor: **Sébastien Van Bellegem**



### Gaëtan MONTERO REDONDO

Department of Geography  
Thesis: Measuring and understanding the morphology of urban space. Theoretical and empirical contributions on the basis of Brussels metropolitan area.

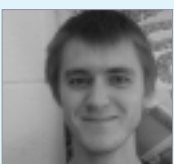
Supervisor: **Isabelle Thomas**



### Mariam NANUMYAM

Louvain School of Economics and Universität Bielefeld, Germany  
Thesis: The impact of opinion formation on expectations and market dynamics

Supervisor: **Vincent Vannetelbosch and Herbert Dawid**



### Sylvain FUNCK

Louvain School of Economics  
Thesis: Essays on the economics of trust in the digital economy

Supervisor: **Paul Belleflamme**



### Lucie PARÉ

Louvain School of Economics

Supervisor: **Paul Belleflamme** and **Johannes Johnen**



### **Erika PINI**

Louvain School of Economics  
Thesis: Economic inequality, political polarization and voter turnout

Supervisor: **François Maniquet**



### **Niranjana PRASAD**

Louvain School of Economics  
Thesis: Family planning laws and contraception use in India

Supervisor: **François Maniquet**



### **Anton RODOMANOV**

Louvain School of Economics  
Thesis: Quasi-Newton Methods with Provable Efficiency Guarantees

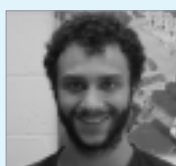
Supervisor: **Yurii Nesterov**



### **Yu SUN**

Louvain School of Economics  
Thesis: Sustainable economic growth and uncertainty

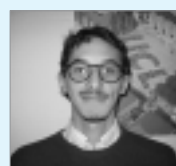
Supervisor: **Thierry Bréchet** and **Sandy Tubeuf**



### **Mathieu SAUVENIER**

Louvain School of Economics  
Thesis: High dimension sparse econometric models

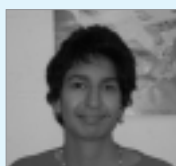
Supervisor: **Sébastien Van Belleghem**



### **Lorenzo TONDI**

Louvain School of Economics  
Thesis: Optimal copyright duration

Supervisor: **Paul Belleflamme**



### **Sonia TRABELSI**

Department of Geography  
Thesis: Geographies of health in Measurements, opportunities and challenges

Supervisor: **Isabelle Thomas**

## CORE TEAM | Post-Doctoral Fellows



**Radu-Alexandru  
DRAGOMIR**

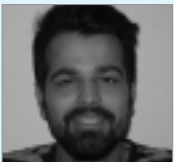
Thesis: Optimization algorithms for large scale problems, with a focus on non-Euclidean methods

Field of interest: quartic optimization methods



**Dmitry KOVALEC**

Fields of interest: Convex optimization and machine learning



**Seyed Hassan  
NOSRATABADI**

IWABE Project : Individual Welfare Analysis Based on Behavioral Economics

Fields of interest: decision theory and its application to both individual and social choice



**Anton RODOMANOV**

Fields of interest: Convex optimization and machine learning



**Allan SAPOUCAIA**

Fields of interest: Combinatorial optimization / supply chain



**Iman SALEM**

Post-Doc SOCCER project Energy

Supervisor: **Per Agrell**



**Frank SCHLÜTTER**

Thesis: Four Essays on Competition Economics

Field of interest: : competition Economics

## CORE TEAM | Research affiliates

Corresponding members are researchers and faculty members from outside UCLouvain who are contributing to the CORE scientific environment and domains of expertise and who mention a CORE affiliation. CORE can count on their precious support and we thank them all for it.



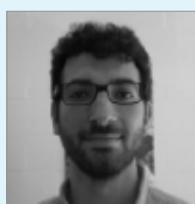
**Daniel DE WOLF**

Université du Littoral  
et de la Côte d'Opale  
France



**Chenghong LUO**

Shanghai University of International  
Business and Economics,  
Shanghai, China



**Valério SERSE**

Compass Lexecon



**Joe THARAKAN**

University of Liège

## CORE TEAM | Staff



**Séverine DE VISSCHER**  
Administrative assistant



**Alain GILLIS**  
Librarian



**Marie GONZE**  
Administrative assistant



**Nancy GUILLAUME**  
Administrative Coordinator



**Fabienne HENRY**  
Administrative assistant



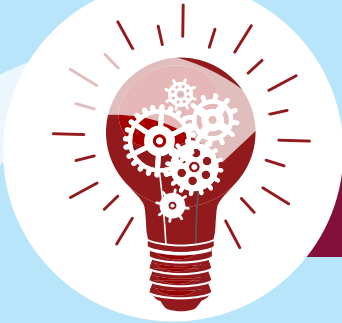
**Margaux HUBIN**  
Accountant



**Monique TANGA**  
Research Officer



**Nathalie VANHUMBEECK**  
Administrative assistant



## Topics

### TOPICS

#### **Economics / Econometrics**

- Economic and Development Growth
- Environmental and Transport Economics
- International Economics
- Industrial Organization and Non-profit Economics
- Macroeconomics and Monetary Economics
- Microeconomic and Economic Theory
- Public, Health, Labor and Demographic Economics

#### **Operations Research**

- Efficiency analysis
- Energy
- Industrial Organization
- Mathematical Optimization
- Supply Chain

#### **Quantitative Geography**

- Regional and Geographical Sciences





# DISCUSSION PAPERS

## TOPICS

### Economics / Econometrics

#### ECONOMIC AND DEVELOPMENT GROWTH

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2022 / 27

[Female labour, status and decision power](#)

[Catherine Bros, Véronique Gille, François Maniquet](#)

#### INDUSTRIAL ORGANIZATION

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2022 / 26

[Managing Seller Conduct in Online Marketplaces and Platform Most-Favored Nation Clauses](#)

[Frank Schlütter](#)

2023 / 06

[Ratings and Reciprocity](#)

[Johannes Johnen, Robin Ng](#)

2023 / 15

[Non-Price Strategies of Marketplaces: A Survey](#)

[Paul Belleflamme, Johannes Johnen](#)

#### MACROECONOMICS AND MONETARY ECONOMICS

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2023 / 02

[Macroeconomics of aging](#)

[Thierry Betti, Mathieu Lefebvre, Pierre Pestieau](#)

## MICROECONOMIC AND ECONOMIC THEORY

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2022 / 24

[Retirement Decision of Belgian Couples and the Impact of the Social Security System](#)  
Sefane Cetin, Alain Jousten

2022 / 25

[School Choice with Farsighted Students](#)  
Ata Atay, Ana Mauleon, Vincent Vannetelbosch

2022 / 27

[Female labour, status and decision power](#)  
Catherine Bros, Véronique Gille, François Maniquet

2022 / 28

[Limited Farsightedness in Priority-Based Matching](#)  
Ata Atay, Ana Mauleon, Vincent Vannetelbosch

2023 / 03

[Local Farsightedness in Network Formation](#)  
Pierre de Callatay, Ana Mauleon, Vincent Vannetelbosch

2023 / 04

[R&D and Market Sharing Agreements](#)  
Jérôme Dollinger, Ana Mauleon, Vincent Vannetelbosch

2023 / 05

[Direction Identification and Minimax Estimation by Generalized Eigenvalue Problem in High Dimensional Sparse Regression](#)  
Mathieu Sauvenier, Sébastien Van Bellegem

2023 / 06

[Ratings and Reciprocity](#)  
Johannes Johnen, Robin Ng

2023 / 07

[Time for Tea: Measuring Discounting for Money and Consumption without the Utility Confound](#)  
Mohammed Abdellaoui, Emmanuel Kemel, Amma Panin, Ferdinand M. Vieider

2023 / 08

[Goodness-of-fit test in high-dimensional linear sparse models](#)  
Mathieu Sauvenier, Sébastien Van Bellegem

2023 / 10

[Cooperative product games](#)  
Pierre Dehez

2023 / 11

[Matching markets with farsighted couples](#)  
Ata Atay, Sylvain Funck, Ana Mauleon, Vincent Vannetelbosch

2023 / 12

[Unions and key players in network games with conflicts and spillovers](#)  
Ana Mauleon, Mariam Nanumyan, Simon Schopohl, Vincent Vannetelbosch

2023 / 13

[Multinational Taxation under Pressure: The Role of Tax Deductibility](#)  
[Xuyang Chen, Jean Hindriks](#)

2023 / 14

[Social mobility and populist values](#)  
[Sergio Perelman, Pierre Pestieau](#)

2023 / 17

[Dividing the expected payoff resulting from joint actions](#)  
[Pierre Dehez](#)

2023 / 18

[The contribution of realized covariance models to the economic value of volatility timing](#)  
[Luc Bauwens, Yongdeng Xu](#)

## **PUBLIC, HEALTH, LABOR AND DEMOGRAPHIC ECONOMICS**

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2022 / 23

[Impact of Forced Sterilization on Female Labor Market Outcomes: Evidence from India](#)  
[Niranjana Prasad](#)

2022 / 24

[Retirement Decision of Belgian Couples and the Impact of the Social Security System](#)  
[Sefane Cetin, Alain Jousten](#)

2023 / 16

[Sustainability of pension reforms: An EU-wide political stress](#)  
[Sefane Cetin, Jean Hindriks](#)

## TOPICS

# Operations Research

### ENERGY

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2023 / 09

[Market Equilibria in Cross-Border Balancing Platforms](#)  
[Jacques Cartuyvels, Gilles Bertrand, Anthony Papavasiliou](#)

### MATHEMATICAL OPTIMIZATION

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2023 / 01

[A Massively Parallel Exact Solution Algorithm for the Balanced Minimum Evolution Problem](#)  
[Daniele Catanzaro, Martin Frohn, Olivier Gascuel, Raffaele Pesenti](#)

3238

[Rates of superlinear convergence for classical quasi-Newton methods](#)  
[Anton Rodomanov, Yurii Nesterov](#)  
 In: *Mathematical Programming*, 2022, vol. 194, p. 159-190

3239

[Local convergence of tensor methods](#)  
[Nikita Doikov, Yurii Nesterov](#)  
 In: *Mathematical Programming*, 2022, vol. 193(1), p. 315-336

3240

[Affine-invariant contracting-point methods for Convex Optimization](#)  
[Nikita Doikov, Yurii Nesterov](#)  
 In: *Mathematical Programming*, 2023, vol. 198(1), p. 115-137

3241

[High-Order Optimization Methods for Fully Composite Problems](#)  
[Nikita Doikov, Yurii Nesterov](#)  
 In: *SIAM Journal on Optimization*, 2022, vol. 32(3), p. 2402-2427

3242

[Discrete choice prox-functions on the simplex](#)  
[David Müller, Yurii Nesterov, Vladimir Shikhman](#)  
 In: *Mathematics of Operations Research*, 2022, vol. 47(1), p. 485-507

3212

[Coordination on networks with farsighted and myopic agents](#)  
[Ana Mauleon, Simon Schopohl, Akylai Taalaibekova, Vincent Vannetelbosch](#)  
 In: *International Journal of Game Theory*, 2022, vol. 51, p. 509-536



# CORE Reprints

## TOPICS

### Economics / Econometrics

#### ECONOMIC AND DEVELOPMENT GROWTH

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3218

[Female labour, status and decision power](#)

[Catherine Bros, Véronique Gille, François Maniquet](#)

[In: \*Economica\*, 2023, vol. 90\(358\), p. 453-476](#)

#### ENVIRONMENTAL AND TRANSPORT ECONOMICS

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3209

[Environmental impacts of enlarging the market share of electric vehicles](#)

[Daniel De Wolf, Ngagne Diop, Moez Kilani](#)

[In: \*Environmental Economics and Policy Studies\*, 2022](#)

#### MICROECONOMIC AND ECONOMIC THEORY

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3212

[Coordination on networks with farsighted and myopic agents](#)

[Ana Mauleon, Simon Schopohl, Akylai Taalaibekova, Vincent Vannetelbosch](#)

[In: \*International Journal of Game Theory\*, 2022, vol. 51, p. 509-536](#)

3213

[Social Rationalizability with Mediation](#)

[P. Jean-Jacques Herings, Ana Mauleon, Vincent Vannetelbosch](#)

[In: \*Dynamic Games and Applications\*, 2023, vol. 13, p. 440-461](#)

3214

[Limited Farsightedness in R&D Network Formation](#)

[Ana Mauleon, Jose J. Sempere-Monerris, Vincent Vannetelbosch](#)  
[In: Dynamic Games and Applications, 2022](#)

3215  
[Myopic-farsighted absorbing networks](#)  
[Pierre de Callataÿ, Ana Mauleon, Vincent Vannetelbosch](#)  
[In: Theory and Decision, 2022](#)

3218  
[Female labour, status and decision power](#)  
[Catherine Bros, Véronique Gille, François Maniquet](#)  
[In: Economica, 2023, vol. 90\(358\), p. 453-476](#)

3222  
[R&D network formation with myopic and farsighted firms](#)  
[Ana Mauleon, Jose J. Sempere-Monerris, Vincent Vannetelbosch](#)  
[In: Journal of Economic Behavior and Organization, 2023, vol. 208, p. 203-229](#)

3226  
[Sharing a collective probability of success](#)  
[Pierre Dehez](#)  
[In: Mathematical Social Sciences, 2023, vol. 123, p. 122-127](#)

3228  
[Preface to the Special issue on "Group Formation and Farsightedness"](#)  
[Francis Bloch, Ana Mauleon, Vincent Vannetelbosch](#)  
[In: Dynamic Games and Applications, 2023, vol. 13, p. 435-439](#)

3234  
[We modeled long memory with just one lag!](#)  
[Luc Bauwens, Guillaume Chevillon, Sébastien Laurent](#)  
[In: Journal of Econometrics, 2023, vol. 236\(1\), 105467](#)

## **PUBLIC, HEALTH, LABOR AND DEMOGRAPHIC ECONOMICS**

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3211  
[Nursing homes and mortality in Europe: Uncertain causality](#)  
[Xavier Flawinne, Mathieu Lefebvre, Sergio Perelman, Pierre Pestieau, Jérôme Schoenmaeckers](#)  
[In: Health Economics, 2022](#)

3217  
[Intergenerational consequences of gradual pension reforms](#)  
[Arno Baurin, Jean Hindriks](#)  
[In: European Journal of Political Economy, 2023](#)

3225  
[Cadre pour une réforme acceptable des pensions](#)  
[Pierre Devolder, Jean Hindriks](#)  
[In: Regards économiques, 2023, nr. 178](#)

3227  
[La méthode Daisugi: Conséquences de réformes graduelles des pensions selon l'âge](#)  
[Arno Baurin, Jean Hindriks](#)  
[In: Forum financier : revue bancaire et financière, 2023, n° 1, p. 9-13](#)

# TOPICS

## Operations Research

### ENERGY

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3216

[Hierarchical Coordination of Transmission and Distribution System Operations in European Balancing Markets](#)

[Ilyès Mezghani, Nicolas Stevens, Anthony Papavasiliou, Dimitris I. Chatzigiannis](#)

[In: IEEE Transactions on Power Systems, 2022](#)

3221

[Batch Learning SDDP for Long-Term Hydrothermal Planning](#)

[Daniel Ávila, Anthony Papavasiliou, Nils Löhndorf](#)

[In: IEEE Transactions on Power Systems, 2023](#)

3243

[Pricing Under Uncertainty in Multi-Interval Real-Time Markets](#)

[Jehum Cho, Anthony Papavasiliou](#)

[In: Operations Research, 2023](#)

3244

[Exact Mixed-Integer Programming Approach for Chance-Constrained Multi-Area Reserve Sizing](#)

[Jehum Cho, Anthony Papavasiliou](#)

[In: IEEE Transactions on Power Systems, 2023](#)

### MATHEMATICAL OPTIMIZATION

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3221

[Batch Learning SDDP for Long-Term Hydrothermal Planning](#)

[Daniel Ávila, Anthony Papavasiliou, Nils Löhndorf](#)

[In: IEEE Transactions on Power Systems, 2023](#)

3229

[Inexact basic tensor methods for some classes of convex optimization problems](#)

[Yurii Nesterov](#)

[In: Optimization Methods and Software, 2022, vol. 37\(3\), p. 878-906](#)

3230

[Gradient methods with memory](#)

[Yurii Nesterov, Mihai Florea](#)

[In: Optimization Methods and Software, 2022, vol. 37\(3\), p. 936-953](#)

3231

[Tensor methods for finding approximate stationary points of convex functions](#)[Geovani Nunes Grapiglia, Yurii Nesterov](#)[In: Optimization Methods and Software, 2022, vol. 37\(2\), p. 605-638](#)

3232

[Efficient numerical methods to solve sparse linear equations with application to PageRank](#)[A. Anikin, A. Gasnikov, A. Gornov, D. Kamzolov, Y. Maximov, Yurii Nesterov](#)[In: Optimization Methods and Software, 2022, vol. 37\(3\), p. 907-935](#)

3233

[Computing Closest Stable Nonnegative Matrix](#)[Yurii Nesterov, Vladimir Protasov](#)[In: SIAM Journal on Matrix Analysis and Applications, 2020, vol. 41\(1\), p. 1-28](#)

3235

[Minimizing Uniformly Convex Functions by Cubic Regularization of Newton Method](#)[Nikita Doikov, Yurii Nesterov](#)[In: Journal of Optimization Theory and Applications, 2021, vol. 189\(1\), p. 317-339](#)

3236

[Subgradient ellipsoid method for nonsmooth convex problems](#)[Anton Rodomanov, Yurii Nesterov](#)[In: Mathematical Programming, 2023, vol. 199, p. 305-341](#)

3237

[Tensor methods for minimizing convex functions with Hölder continuous higher-order derivatives](#)[Geovani Nunes Grapiglia, Yurii Nesterov](#)[In: SIAM Journal on Optimization, 2020, vol. 30\(4\), p. 2750-2779](#)

## SUPPLY CHAIN

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3223

[Lattice Reformulation Cuts](#)[Karen Aardal, Andrea Lodi, Andrea Tramontani, Frederik von Heymann, Laurence A. Wolsey](#)[In: SIAM Journal on Optimization, 2021, vol. 31\(4\), p. 2539-2557](#)

3224

[Improved models for a single vehicle continuous-time inventory routing problem with pickups and deliveries](#)[Agostinho Agra, Marielle Christiansen, Laurence Wolsey](#)[In: European Journal of Operational Research, 2022, vol. 297\(1\), p.164-179](#)[The contest for value in global value chains: Correcting for distorted distribution in the global apparel industry : Lilac Nachum and Yoshiteru Uramoto Edward Elgar, 2021, 192 pp. ISBN: 978-1-80088-214-0](#)[Blome, Constantin\[UCL\] Manning, Stephan Schleper, Martin C. \(2022\) Journal of International Business Studies — Vol. 53, no.8, p.1836-1840 \(2022\)](#)



[The Multifaceted Role of Social Capital for Achieving Organizational Ambidexterity and Supply Chain Resilience](#)

[Aslam, Haris Syed, Tahir Abbas Blome, Constantin\[UCL\] Ramish, Asher Ayaz, Khawaja \(2022\) IEEE Transactions on Engineering Management — , p. 1-14 \(2022\)](#)

[Financial and market impacts of buyer-supplier sustainability asymmetries: Empirical evidence from sensitive industries](#)

[Montes-Sancho, María J. Tachizawa, Elcio M. Blome, Constantin\[UCL\] \(2022\) Journal of Cleaner Production — Vol. 370, p. 133256 \(2022\)](#)

[When it's the slaves that pay: In search of a fair due diligence cost distribution in conflict mineral supply chains](#)

[Schleper, Martin C. Blome, Constantin\[UCL\] Stevenson, Mark Thüerer, Matthias Tusell, Ju \(2022\) Transportation Research Part E: Logistics and Transportation Review — Vol. 164, p. 102801 \(2022\)](#)

[Sustainable humanitarian supply chains: a systematic literature review and research propositions](#)

[Anjomshoae, Ali Banomyong, Ruth Hossein Azadnia, Amir Kunz, Nathan Blome, Constantin\[UCL\] \(2023\) Production Planning and Control — p. 1-21 \(2023\)](#)

[Trust and opportunism as paradoxical tension: Implications for achieving sustainability in buyer-supplier relationships](#)

[Blome, Constantin\[UCL\] Paulraj, Antony Preuss, Lutz Roehrich, Jens K. \(2023\) Industrial Marketing Management — Vol. 108, p. 94-107 \(2023\)](#)

[Digital technology adoption for modern slavery risk mitigation in supply chains: An institutional perspective](#)

[Jiang, Mengqi Chen, Lujie Blome, Constantin\[UCL\] Jia, Fu \(2023\) Technological Forecasting and Social Change — Vol. 192, p. 122595 \(2023\)](#)

[The role of managerial activities in achieving Information technology ambidexterity and new product development performance in small and medium-sized enterprises](#)

[Syed, Tahir Abbas Blome, Constantin\[UCL\] Benitez, Jose Papadopoulos, Thanos \(2023\) European Journal of Information Systems — , p. 1-26 \(2023\)](#)

[\(Re\)-discovering simulation as a critical element of OM/SCM research: call for research](#)

[Melnik, Steven Alexander Thüerer, Matthias Blome, Constantin\[UCL\] Schoenherr, Tobias Gold, Stefan \(2023\) International Journal of Operations & Production Management — \(2023\)](#)

[The rugged landscape of product stewardship: Does it invoke the double-edged effect of knowledge acquisition?](#)

[Paulraj, Antony Rajkumar, Christopher Blome, Constantin\[UCL\] Faruquee, Murtaza \(2023\) Supply Chain Management: An International Journal — Vol. 28, no. 5, p. 874-893 \(2023\)](#)

[From supply chain learning to the learning supply chain: drivers, processes, complexity, trade-offs and challenges](#)

[Silvestre, Bruno S. Gong, Yu Bessant, John Blome, Constantin\[UCL\] \(2023\) International Journal of Operations & Production Management — Vol. 43, no.8, p. 1177-1194 \(2023\)](#)

[Geopolitical disruptions in global supply chains: a state-of-the-art literature review](#)

[Bednarski, Lukasz Roscoe, Samuel Blome, Constantin\[UCL\] Schleper, Martin C. \(2023\) Production Planning & Control — , p. 1-27 \(2023\)](#)

## TOPICS

# Quantitative Geography

### REGIONAL AND GEOGRAPHICAL SCIENCES

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3210

[A partition-free spatial clustering that preserves topology: application to built-up density](#)  
Gaëtan Montero, Geoffrey Caruso, Mohamed Hilal, Isabelle Thomas  
In: [Journal of Geographical Systems, 2022](#)

3219

[Does Tolling Per Kilometre Compensate for the External Costs of Trucks? A Geographical Approach for Belgium](#)  
Arnaud Adam, Stef Proost, Isabelle Thomas  
In: [International Regional Science Review, 2022](#)

3220

[No "Prêt à Porter" but a Multi-scalar Perspective of "Smart Cities"](#)  
Geoffrey Caruso, Denise Pumain, Isabelle Thomas  
In: [Robert Laurini, Peter Nijkamp, Karima Kourtit, Louafi Bouzouina \(eds\). Knowledge Management for Regional Policymaking. Springer, 2022, p. 123-147 \(chap. 7\)](#)



## Junior Researchers

### Junior Researchers

#### PhD Students and Junior Researchers

- Gautier Attanasi
- Daniel Felipe Avila Girardot
- Matteo Bulgarelli
- Jacques Cartuyvels
- Sefane Çetin
- Xuyang Chen
- Jehum Cho.
- Fabrizio Ciotti
- Sarah Damai
- Pierre de Callataÿ
- Thomas De Munck
- Henri Dehaybe
- Nikita Doikov
- Jérôme Dollinger
- Thomas Eisfeld
- Giorgio Ferroni
- Juan Rodriguez Gonzalves
- Antoine Germain
- Madeleine Guyot
- Manuel Herrera Rodriguez
- Emma Innocente
- Quentin Lete
- Colin Leonetti.
- Gaëtan Montero Redondo
- Robin Ng
- Lucie Paré
- Erika Pini
- Niranjana Prasad
- Anton Rodomanov
- Mathieu Sauvenier
- Valerio Serse
- Nicolas Stevens
- Lorenzo Tondi
- Martial Toniotti
- Flore Vancompernelle
- Leila Van Keirsblick
- Tom Van Zeebroeck

#### Post Doctoral Fellow

*Research fellows are scholars working at CORE for a period of one to three years.*

- Radu- Alexander Dragomir
- Seyed Hassan Nosratabadi
- Franck Schluter
- Anton Rodomanov
- Dmitry Kovalec
- Imam Salem
- Allan Sapoucaia

## Completed PhD Dissertations

### 5 CORE doctoral students successfully defended their Doctoral Dissertation at CORE.

**Erika Pini** on September 16, 2022

« Political participation and competition in the era of polarization »

Thesis advisor : Prof. François Maniquet

**Sefane Cetin** on February 6, 2023

Title: « Essays on Joint Retirement and Sustainability of Social Security Systems »

Thesis advisors: Prof. Jean Hindriks and Prof. Vincent Vandenberghe

**Gaëtan Montero** on March 17, 2023

Title: « Morphological delineation and characterisation of urban spaces »

Thesis advisor: Prof. Isabelle Thomas

**Mathieu Sauvenier** on April 21, 2023

« Identification and Inference in High-Dimensional Econometric Models »

Thesis advisor : Prof. Sébastien Van Belleghem

**Pierre de Callatay** on June 05, 2023

Title: « Three Essays on Farsightedness in Network Formation »

Thesis advisors: Prof. Vincent Vannetelbosch and Prof. Ana Mauleon



## Scientific Exchanges & Visitors

### RESEARCH VISITORS

#### Visitors

**Eduardo Alarcón-Bustamante**

Pontificia Universidad Católica de Chile  
Invited by Prof. Sébastien Van Belleghem  
From November 15 to November 25, 2022

**Sandro Ambuehl**

University of Zurich  
Invited by Amma Panin  
From 29/03/2023 until 30/03/2023

**Francesco Capozza**

Erasmus School of Economics  
Invited by Paul Belleflamme  
From 14/03/2023 until 15/03/2023

**Binta Zahra Diop**

University of Oxford  
Invited by Amma Panin  
From 22/03/2023 until 24/03/2023

**Nikita Doikov**

EPFL Switzerland  
Invited by Yurii Nesterov  
From 19/03/2023 until 26/03/2023

**Mihai Florea**

Aalto University  
Invited by Yurii Nesterov  
From 14/05/2023 until 19/05/2023

**Manuel Foerster**

Bielefeld University  
Invited by Vincent Vannetelbosch  
From 13/03/2023 until 17/03/2023

**Axel Gautier**

Université de Liège  
Invited by Paul Belleflamme On 10/07/2023

**Andrea Gasparin**

Università degli Studi di Trieste  
Invited by Prof. Daniele Catanzaro  
From November 21 to December 2, 2022

**Jean-Jacques Herings**

Tilburg University  
Invited by Prof. Vincent Vannetelbosch  
From December 5 to 8, 2022

**Enrico Malaguti**

University of Bologna  
Invited by Prof. Daniele Catanzaro  
From December 5 to 7, 2022

**Mykhailo Matvieiev**

AMSE  
Invited by Yurii Nesterov  
From 17/05/2023 until 18/05/2023

**Yukihiro NISHIMURA**

Graduate School of Economics, Osaka University  
Invited by Prof. Jean Hindriks  
From January 16 to March 16, 2023

**Riccardo Paba**

Univesita di Sassari  
Invited by Paul Belleflamme  
From 01/09/2023 until 31/08/2024

**Robert Raschka**

Universität Hamburg  
Invited by François Maniquet  
From 08/05/2023 until 19/05/2023

**David Ronayne**

ESMT Berlin  
Invited by Paul Belleflamme  
From 09/07/2023 until 12/07/2023

**Juan José Salazar**

Universidad de La Laguna  
Invited by Prof. Daniele Catanzaro  
From November 14 to November 18, 2022

**Ernesto San Martin**

PUC Chili  
Invited by Prof. Sébastien Van Belleghem  
From 06/02/2023 till 16/03/2023

**Kathin Schlafmann**

Copenhagen Business School  
Invited by Prof. Francesca Monti  
On 17/11/2022

**Anna Simoni**

ENSAE-CREST  
Invited by Sébastien Van Bellegem  
On 21/04/2023

**Greg Taylor**

University of Oxford  
Invited by Paul Belleflamme  
On 28/03/2023

**Mark Tremblay**

Miami University  
Invited by Paul Belleflamme  
From 25/03/2023 until 10/04/2023



## Conferences & Seminars

### 2022

September 21, 2022

Core Brown Bag Seminar

Sefane Cetin (CORE)

Retirement Decision of Belgian Couples and the Impact of the Social Security System

September 28, 2022

Core Brown Bag Seminar

Robin Ng (CORE)

Open Source Competition

October 05, 2022

CORE Brown Bag Seminar

Hassan Nosratabadi (CORE)

On Welfare Analysis under Limited Attention

October 12, 2022

CORE Brown Bag Seminar

Francesco Roccazzella (LFIN)

Should we care about ECB inflation expectations?

October 14, 2022

LED Seminar

Brett Hollenbeck (UCLA Anderson School of Management)

Detecting fake review buyers using network structure: Direct evidence from Amazon

October 19, 2022

CORE Brown Bag Seminar

Amma Panin (CORE)

Religious Organizations as Competing Platforms

November 04, 2022

LED Seminar

Christoph Carnehl (Bocconi University)

Pricing for the Stars - Dynamic Pricing in the Presence of Rating Systems

November 09, 2022

CORE Brown Bag Seminar

Seyed Hassan Nosratabati (CORE)

On Welfare Analysis under Limited Attention

November 16, 2022

CORE Brown Bag Seminar

Keiti Kondi (IRES)

Integration Vs Cultural Persistence: Fertility and Working Time among Second Generation Migrants in France

November 17, 2022

OR Seminar

Juan José Salazar (Universidad de La Laguna)

Mathematical Formulations for Consistent Travelling Salesman Problems

November 23, 2022

CORE Brown Bag Seminar

Bhaskar Dutta (University of Warwick) Attack and Interception in Networks

November 30, 2022

CORE Brown Bag Seminar

Niranjana Prasad (CORE)

Institutional trust and women's healthcare utilization: Evidence from India

December 02, 2022

LED Seminar

Ksenia Shakhgildyan (Bocconi University)

Measuring Complementarities in Vertical Markets: Evidence from the Digital Advertising Industry

December 06, 2022

OR Seminar

Enrico Malaguti (University of Bologna) Chance-constrained problems with integer second-stage recourse decisions

December 07, 2022

CORE Brown Bag Seminar

Thomas Eisfeld (CORE)

Unite and Conquer: Seller Collusion in Multi-Sided Markets

December 14, 2022

CORE Brown Bag Seminar

Gregory Ponthiere (UCLouvain)

Epictetian Rationality

## 2023

February 03, 2023

LED Seminar

Shiva Shekhar (Tilburg School of Economics and Management)

The Strategic Value of Data Sharing

February 08, 2023

CORE Brown Bag Seminar

Hassan Nosratabadi (CORE)

On Welfare Analysis under Limited Attention

February 15, 2023

CORE Brown Bag Seminar

François Maniquet (CORE)

Social identity, downward comparisons and the just-world fallacy: A note on the social-psychological origins of economic inequality

February 22, 2023

CORE Brown Bag Seminar

Jacques Cartuyvels (CORE)

Pricing Asymmetry and Cross-Border Balancing Platform

March 01, 2023

CORE Brown Bag Seminar

Matteo Bulgarelli (CORE)

The Environmental Implications of Renting the Runway

March 08, 2023

Séminaire d'épistémologie

Sébastien Van Belleghem (CORE)

Jean-Noël Ferrière (CNRS, UIR Rabat)

Ernesto San Martín (PUC Chili)

Du chiffre au discours

March 08, 2023

CORE Brown Bag Seminar

Liana Nersisyan (LFIN)

Oil Price Shocks and Bond Risk Premia: Evidence from a Panel of 15 Countries

March 10, 2023

LED Seminar

Emil Palikot (Stanford Graduate School of Business)

Smiles In Profiles: Improving Fairness and Efficiency Using Estimates of User Preferences in Online Marketplaces

March 15, 2023

CORE Brown Bag Seminar

Francesco Capozza (Erasmus School of Economics)

Who should get Money? Estimating Welfare Weights in the U.S.

March 22, 2023

CORE Brown Bag Seminar

Cristina Lafuente Martinez (CORE)

Hysteresis for the Young: Search Capital and Unemployment

March 29, 2023

CORE Brown Bag Seminar

Mark Tremblay (Miami University)

Multi-homing vs. Single-homing in Two-Sided

April 14, 2023

LED Seminar

Elena Argentesi (Bologna University) Estimating

Demand with Multi-Homing in Two-Sided Markets

April 19, 2023

CORE Brown Bag Seminar

Camille Hainnaux (AMSE)

Taxing incognito: optimal climate taxation and inequality

April 21, 2023

Econometrics Seminar

Germain Van Bever (UNamur)

Additive regression with general imperfect variables

April 21, 2023

Econometrics Seminar

Anna Simoni (CREST)

Bayesian Bi-level Sparse Group Regressions for Macroeconomic Forecasting

April 21, 2023

Econometrics Seminar

Mathieu Sauvenier (CORE)

Identification and inference in high dimensional econometric models

May 03, 2023

CORE Brown Bag Seminar

Mathieu Sauvenier (CORE)

Direction Identification and Minimax Estimation by Generalized Eigenvalue Problem in High Dimensional Sparse Regression

May 10, 2023

CORE Brown Bag Seminar

Robert Raschka (Universität Hamburg)

A Single Relation Theory of Welfarist Social Evaluation

May 12, 2023

LED Seminar

Marita Freimane (University of Zurich)

Thumbs Up, Thumbs Down: Dislike Attacks and Content Creator Productivity on YouTube

May 17, 2023

CORE Brown Bag Seminar

Mykhailo Matvieiev (AMSE)

Job uncertainty, wage growth, and cyclical reallocation

June 16, 2023 LED Seminar

Hanna Halaburda (NYU Stern School of Business)

Blockchains, Tokens, and Platforms





## Events

### 2023

March 28, 2023

International conference « Is the International Monetary and Financial System fit for the Financing of the Ecological Transition? »

June 2, 2023

Workshop « Recent Advances in Econometrics »  
In the honor of Prof. emeritus Luc BAUWENS, CORE.



## PROJECTS

### PROJECTS

#### Behavioral Economics

##### **Anxiety, insurance and economic mistakes**

CORE Coordinator: Amma Panin (CORE)

Financing: FNRS - CDR 2021

Date: January 2022 - December 2023

##### **Peer-dependent reference points**

CORE Coordinator: Johannes Johnen

CORE Researcher: Thomas Eisfeld (CORE)

Financing: FNRS -FRESH 2021 (2nd grant)

Date: October 2020 - September 2023

##### **Payment flexibility for insurance premiums in Rwanda. Welfare effects and policy design.**

CORE Coordinator: Amma Panin

Financing: FSR 2022

Date: October 2022 - September 2024

#### Digital Economics

##### **Platform Regulation and Operations in the Sharing Economy (PROSEco)**

CORE coordinators: Paul Belleflamme, Philippe Chevalier, Johannes Johnen and Jean-Sébastien Tancrez  
CORE researchers: Muxin Li, Robin NG and Rishikesh Parma

Financing: Fédération Wallonie-Bruxelles - ARC

Date: October 2019 - September 2024

##### **The interplay between competition on and competition among digital marketplaces**

CORE coordinator: Paul Belleflamme

CORE researcher: Fabrizio Ciotti

Financing: FNRS- FRESH

Date: February 2020- September 2023

##### **Chaire Economie Digitale**

CORE coordinator: Paul Belleflamme

Financing: Google Belgium

Date: September 2020 - December 2025

##### **How do ratings work? The impact of formation of ratings and design of ratings systems on the informativeness of ratings.**

CORE Coordinators: Paul Belleflamme /Johannes Johnen

CORE Researcher: Robin Ng

Financing: FNRS - Aspirant (2022) Date: October

2022 - September 2024

#### Energy

##### **Socio-Economie des Communautés d'Énergie Renouvelable (SOCCER)**

CORE coordinator : Per AGRELL

CORE researchers : Iman SALEM, Manuel HERRERA

Financing: SPW

Date: January 2021 – December 2024

##### **Flexible energy production, demand and storage-based virtual power plants for electricity markets and resilient DSO operation (FEVER)**

CORE coordinator: Anthony Papavasiliou

CORE researcher: Ilyès Mezghani, Nicolas Stevens

Financing: European Commission (H2020) - ERC

Date: February 2020 - July 2023

##### **Energy technology modelling framework for policy support towards a cost effective and sustainable society in 2030-2050 (ECPO 2030-2050)**

CORE coordinator: Anthony Papavasiliou

CORE researcher: Jacques Cartuyvels

Financing: FNRS - FRIA

Date: October 2018 - May 2023

#### Education

##### **Does making secondary school a minimum requirement for parliamentarian?**

CORE Coordinator: Amma Panin

Financing: IGC Funding ZMB-22084 (external grant award) International Growth Centre

Date: February 2022 - April 2023

#### Financial Economics

##### **Traitement théorique et empirique des primes de risque sur le marché des obligations d'Etat**

CORE coordinator: Leonardo Iania

Financing: FNRS - Aspirant

Date: October 2020- September 2022

## Game Theory

### **The interplay between competition on and competition among digital marketplaces**

CORE coordinator: Paul Belleflamme

CORE researcher: Fabrizio Ciotti

Financing: FNRS - FRESH

Date: February 2020 - September 2023

### **Essays on the determinants of women's**

CORE Coordinator: François Maniquet

CORE Researcher: Niranjana Prasad

Financing: FNRS - FRESH 2021 (1st grant - 2nd year) access to healthcare in India

Date: January 2021 - December 2022

### **Social security under heterogeneous risk preferences: balancing longevity and mortality risks**

CORE Coordinator: Jean Hindriks

CORE Researcher: Alessandro Veneri

Financing: FNRS - Aspirant (2022)

Date: September 2021 - September 2022

## Industrial Organization

### **Platform Regulation and Operations in the Sharing Economy (PROSEco)**

CORE coordinators: Paul Belleflamme, Philippe Chevalier, Johannes Johnen and Jean-Sébastien Tancrez

CORE researchers: Muxin Li, Robin NG and Rishikesh Parma

Financing: Fédération Wallonie-Bruxelles -ARC

Date: October 2019 - September 2024

### **The interplay between competition on and competition among digital marketplaces**

CORE coordinator: Paul Belleflamme

CORE researcher: Fabrizio Ciotti

Financing: FNRS - FRESH

Date: February 2020 - September 2023

### **How do ratings work? The impact of formation of ratings and design of ratings systems on the informativeness of ratings.**

CORE Coordinators: Paul Belleflamme /Johannes Johnen

CORE Researcher: Robin Ng

Financing: FNRS - Aspirant (2022)

Date: October 2022 - September 2024

## Mathematical Optimization

### **Accelerated Convex Optimization (ACCOpt)**

CORE coordinator: Yurii Nesterov

CORE researchers: Masoud Ahookkosh, Nikita Doikov, Mihai Florea, Geovani Nunes Grapiglia, Anton Rodomanov and Evgeniia Vorontsova

Financing: European Commission - ERC

Date: September 2018 - September 2023

### **Trade-opt training data-driven experts in optimization**

CORE coordinator: François Glineur

Financing: European Commission (ITN Marie-Curie H2020)

Date: June 2020 - May 2024

### **Computing the exact performance of black-box optimization methods: An automated tool to improve understanding and design better algorithms**

CORE coordinator: François Glineur

Financing: UCL Louvain and KU Leuven (KU Leuven Global PhD partnerships 2020 with UCLouvain)

Date: October 2020 - September 2022

### **Advances in computational phylogenetics**

CORE Coordinator: Daniele Catanzaro

Financing: FNRS -PDR (2021)

Date: January 2022 - December 2025

## Pension

### **Lifespan heterogeneity, «hazardous and arduous» occupations and pension policy**

CORE Coordinators: Vincent Vandenberghe & Jean Hindriks

CORE Researcher: Arno Baurin (CORE)

Financing: FNRS - FRESH (2021 -2nd grant)

Date: January 2021 - September 2023

## Public Economic Theory

### **Economic inequality, political polarization and voter turnout**

CORE coordinator: François Maniquet

CORE researcher: Erika Pini

Financing: FNRS - Aspirant

Date: October 2018 - September 2022

### **Essays on the determinants of women's**

CORE Coordinator: François Maniquet

CORE Researcher: Niranjana Prasad

Financing: FNRS - FRESH 2021 (1st grant - 2nd year) access to healthcare in India

Date: January 2021 - December 2022

### **Does making secondary school a minimum requirement for parliamentarian**

CORE Coordinator: Amma Panin

Financing: IGC Funding ZMB-22084 (external grant award) International Growth Centre Date: February 2022 - April 2023

**Payment flexibility for insurance premiums in Rwanda. Welfare effects and policy design.**

CORE Coordinator: Amma Panin

Financing: FSR 2022

Date: October 2022 - September 2024

**Social security under heterogeneous risk preferences: balancing longevity and mortality risks**

CORE Coordinator: Jean Hindriks

CORE Researcher: Alessandro Veneri

Financing: FNRS - Aspirant (2022)

Date: September 2021 - September 2022

## Social Choice and Welfare

**Payment flexibility for insurance premiums in Rwanda. Welfare effects and policy design.**

CORE Coordinator: Amma Panin

Financing: FSR 2022

Date: October 2022 - September 2024

## Supply Chain

**Operations Research in Hospital Management**

CORE coordinator : Jean-Sébastien TANCREZ

CORE researcher : Alain DESCHAMPS

Financing: Grand Hôpital de Charleroi

Date: January 2022 – August 2024